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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,726	11/12/2003	Peter Streuer	054821-0877	7254

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EXAMINER	
LEWIS, BEN	

ART UNIT	PAPER NUMBER
1795	

MAIL DATE	DELIVERY MODE
10/06/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/706,726	STREUER, PETER	
	Examiner	Art Unit	
	Ben Lewis	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 12th, 2008 has been entered.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 13-18, 21-27, 30, 32 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krabatsch et al. European Patent No. (DE 33 30 823 A1)

With respect to claims 13-17, 21, 23, 24, 25, 26, 30, 32, 35 Krabatsch et al. discloses a plug for an accumulator "battery". The plug has degassing openings **9** and **19** and **18** (See Figure).

Krabatsch et al. teach an upper part **21** with opening **18** to the outside and a lower part **7** (See Figure). Opening **18** is also connected to the splash basket **7** (See Figure).

Krabatsch et al. teaches an acid cage **7** "splash basket" having an inner diameter that increases from the free end to the upper end of the acid cage and slots continuing as far as the free end of the splash basket (See Figure) (See page 2 line 1-10).

With respect to the shape of the slots, Krabatsch et al. do not specifically teach wherein each of the slots has a width that broadens with increasing distance from the free end of the splash basket. Unless applicant shows criticality for the claimed features, changes in size and shape is obvious absent a showing of unexpected results.

In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) (The court held that the configuration of the claimed disposable plastic nursing container was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant.).

It is noted that applicant's slot widths and basket shape appear to be similar to, if not identical to that shown in the Figure in DE 3330823.

With respect to slots including a free end extending toward the free end of the splash basket, Krabatsch et al. teach that feature **10** of the plug is an opening.

Since, there is no showing of unexpected results or showing of criticality of the end of Applicant's slots being free as claimed by the Applicant as opposed to the slots of Krabatsch et al. having lower edge support **24** at the end of the slots of Krabatsch et al., the plug of Applicant is obvious variant of the plug of Krabatsch et al.

With respect to allowing the splash basket to felx upon insertion into the openings of the degassing system, Krabatsch et al. discloses having lower edge support **24** at the end of the slots of Krabatsch et al., the plug of Applicant is obvious variant of the plug of Krabatsch et al. Examiner also notes that without the oring 24 of Krabatsch et al. being present would save material costs in the plug of Krabatsch et al. Examiner notes that oring 24 is a flexible material that would allow the splash basket of Krabatsch et al. to flex upon insertion into the openings of the degassing system of Krabatsch et al.

With respect to claim 22, Krabatsch et al. teach that annular grooves **4** and **6** are indented, into which O-rings **5** are inserted, in order to seal part **21** with the inner wall of the cover **1** (See Figure) (See Page 2 lines 8).

3. Claims 19, 20, 28, 29 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krabatsch et al. European Patent No. (DE 33 30 823 A1) in view of Spaziante et al. (U.S. Patent No. 4,201,647).

With respect to claims 19, 20, 28, 29 and 33, Krabatsch et al. discloses a plug for an accumulator "battery" in paragraph 2 above. Krabatasch et al. teach that the plug has degassing openings **9** and **19** and **18** (See Figure).

Krabatsch et al. teach an upper part **21** with opening **18** to the outside and a lower part **7** (See Figure). Opening **18** is also connected to the splash basket **7** (See Figure).

Krabatsch et al. teaches an acid cage **7** "splash basket" having an inner diameter that increases from the free end to the upper end of the acid cage and slots continuing as far as the free end of the splash basket (See Figure) (See page 2 line 1-10).

With respect to the shape of the slots, Krabatsch et al. do not specifically teach wherein each of the slots has a width that broadens with increasing distance from the free end of the splash basket. Unless applicant shows criticality for the claimed features, changes in size and shape is obvious absent a showing of unexpected results.

In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) (The court held that the configuration of the claimed disposable plastic nursing container was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant.).

It is noted that applicant's slot widths and basket shape appear to be similar to, if not identical to that shown in the Figure in DE 3330823.

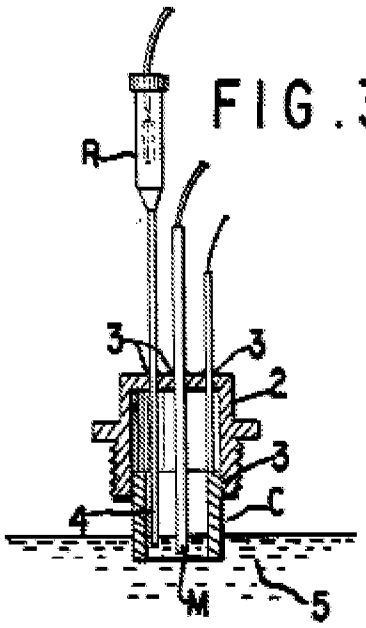
With respect to slots including a free end extending toward the free end of the splash basket, Krabatsch et al. teach that feature **10** of the plug is an opening. Since, there is no showing of unexpected results or showing of criticality of the end of Applicant's slots being free as claimed by the Applicant as opposed to the slots of Krabatsch et al. having lower edge support **24** at the end of the slots of Krabatsch et al., the plug of Applicant is obvious variant of the plug of Krabatsch et al. Examiner also notes that without the oring 24 of Krabatsch et al. being present would save material costs in the plug of Krabatsch et al.

Krabatsch et al. do not disclose at least one of as state of charge indicator and acid level indicator attached to the upper part of the sealing plug and passing through the lower part of the sealing plug cavity.

However, Spaziante et al. discloses measuring electrodes and process (title) wherein, considering the discharging voltage characteristics of a lead battery, it is evident that the voltage determination cannot give a reliable indication of the charge condition of the battery since even near full discharge the voltage is almost the same as that of a fully charged battery. A reliable method to assess the charge condition is to measure the acid concentration (Col 2 lines 4-20). Spaziante et al also teach that in FIG. 3, the assembly is comprised of a measuring electrode M, a counter-electrode C for activating the measuring electrode M by anodic polarization of the same in an acidic or basic solution and a reference electrode R (Col 6 lines 5-16). The measuring

assembly constituted by the three electrodes placed in the electrolyte of the battery is moreover useful in detecting and eventually signaling the lowering of the level of the electrolyte below the recommended minimum (Col 9 lines 45-65) (See Fig. 3). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the battery level/charge indicator of Spaziante et al into the battery plug of Krabatsch et al. because Spaziante et al teach that the measuring assembly constituted by the three electrodes placed in the electrolyte of the battery is moreover useful in detecting and eventually signaling the lowering of the level of the electrolyte below the recommended minimum (Col 9 lines 45-65).

FIG. 3



With respect to claims 18, 27 and 34, Krabatsch et al. as modified by Spaziante et al. is silent as to the roughness of the splash guards. However, it is the position of

the examiner that such properties are inherent, given that the materials of construction of the plug of Krabatasch et al. as modified by Spaziante et al. have an inherent roughness. A reference which is silent about a claimed invention's features is inherently anticipatory if the missing feature is necessarily present in that which is described in the reference. In re Robertson, 49 USPQ2d 1949 (1999).

With respect to claims 19, 28-29 and 33, Krabatsch et al. as modified by Spaziante et al. discloses a plug for an accumulator "battery" (See Figure. Spaziante et al also teach that in FIG. 3, the assembly is comprised of a measuring electrode M, a counter-electrode C for activating the measuring electrode M by anodic polarization of the same in an acidic or basic solution and a reference electrode R (Col 6 lines 5-16). The measuring assembly constituted by the three electrodes placed in the electrolyte of the battery is moreover useful in detecting and eventually signaling the lowering of the level of the electrolyte below the recommended minimum (Col 9 lines 45-65) (See Fig. 3).

The instant specification recites the state of charge indicator and/or electrolyte level indicator may also have a roughened surface (Paragraph 0019). Thomas et al and Spaziante et al are silent as to the roughness of the charge indicator and/or electrolyte level indicator. However, it is the position of the examiner that such properties are inherent, given that the materials of construction of the charge indicator and/or electrolyte level indicator of Thomas et al. and Spaziante et al have an inherent roughness. A reference which is silent about a claimed invention's features is inherently

anticipatory if the missing feature is necessarily present in that which is described in the reference. In re Robertson, 49 USPQ2d 1949 (1999).

4. Claims 31 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krabatsch et al. European Patent No. (DE 33 30 823 A1) in view of Richter et al. (U.S. Patent No. 6,733,921 B2).

With respect to claims 31 and 36, Krabatsch et al. discloses a plug for an accumulator "battery". The plug has degassing openings **9** and **19** and **18** (See Figure).

Krabatsch et al. teach an upper part **21** with opening **18** to the outside and a lower part **7** (See Figure). Opening **18** is also connected to the splash basket **7** (See Figure) in paragraph 2 above.

Krabatsch et al. teaches an acid cage **7** "splash basket" having an inner diameter that increases from the free end to the upper end of the acid cage and slots continuing as far as the free end of the splash basket (See Figure) (See page 2 line 1-10).

Krabatsch et al. do not specifically teach that the sealing plug is formed from an electrically conductive plastic. However, Richter et al. disclose a rechargeable electric battery (title) wherein a rechargeable electric battery including a plate block arranged in a plastic block box, positive and negative electrodes located in the box and electrically isolated by separators and conductively connected by sulfuric acid electrolyte, a cover for the box which has closure plugs and/or acid state indicators fitted in a gas-tight

manner to openings therein, wherein at least a portion of an inner surface of the battery is electrically conductive or is provided with an electrically conductive layer, beginning in an area of a sealing seat of the closure plug or of the acid state indicator, and is electrically conductively connected to the electrolyte (Col 2 lines 35-47). Richter et al. also teach that he electrical connection between closure plug and acid is provided by immersing the lower part of the plug into the electrolyte or via parts of the rechargeable battery which provide an electrical connection to the acid, or via an active capillary wick which effects the connection to the electrolyte (Col 4 lines 10-20).

With respect to the sealing plug formed from electrically conductive plastic, Richter et al. teach that the plug can be composed of, for example, corrosion resistant metal, conductive plastic, carbon (graphite, pyrolytic carbon), plastic doped with carbon powder or carbon fibers or conductive ceramic material (Col 3 lines 60-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the conductive plastic material of Richter et al. as sealing plug material in Krabatsch et al because conductive plastic material is resistant to the corrosive internal environment of batteries.

Response to Arguments

5. Applicant's arguments filed on September 12th, 2008 have been fully considered but they are not persuasive.

Applicant's principal arguments are

(a) Applicants have provided a clear description of the criticality of having free ends of the splash basket in which the plates are not coupled to each other to restrict their movement. The advantage of such a configuration is not disclosed, taught, or suggested by Krabatsch et al., whether taken alone or in proper combination with Spaziante et al. and/or Richter et al.

(b) To transform the "closing plug for an accumulator" of Krabatsch et al. and the "measuring electrodes and process" of Spaziante et al. into a "rechargeable battery" (as recited in Claim 4) would require still further modification, and such modification is taught only by the Applicant's own disclosure.

In response to Applicant's arguments, please consider the following comments.

(a) and (b) With respect to slots including a free end extending toward the free end of the splash basket, Krabatsch et al. teach that feature **10** of the plug is an opening. Since, there is no showing of unexpected results or showing of criticality of the end of Applicant's slots being free as claimed by the Applicant as opposed to the slots of Krabatsch et al. having lower edge support **24** at the end of the slots of Krabatsch et al., the plug of Applicant is obvious variant of the plug of Krabatsch et al. Examiner also notes that without the oring 24 of Krabatsch et al. being present would save material costs in the plug of Krabatsch et al.

With respect to Applicant's argued intended use that {*the "continuous slots" allow a sealing plug to be "inserted obliquely into the cover of a rechargeable battery.., owing to the flexibility provided for the splash basket by means of the continuous slots" and "allows the sealing plug to be inserted into the cover via the openings even without being centered exactly."*}. Examiner notes that since Krabatsch et al teach that a densitometer is passed through the lower edge support 24 and is held by the lower edge support then the lower edge support 24 is flexible which makes the acid cage of Krabatsch et al. capable of performing Applicant's argued intended use of insertability due to flexibility of the splash basket of Applicant.

With respect to Applicant's argument that "To transform the "closing plug for an accumulator" of Krabatsch et al. and the "measuring electrodes and process" of Spaziante et al. into a "rechargeable battery" (as recited in Claim 4) would require still further modification, and such modification is taught only by the Applicant's own disclosure". Examiner notes that Krabatsch et al. teach that "a densitometer (measuring electrode) is passed through the lower edge support 24" (Krabatsch et al. Page 2). Furthermore, in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 .2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case,

Krabatsch et al. teach that “a densitometer (measuring electrode) is passed through the lower edge support 24” (Krabatsch et al. Page 2) and Spaziante et al teach that the measuring assembly constituted by the three electrodes placed in the electrolyte of the battery is moreover useful in detecting and eventually signaling the lowering of the level of the electrolyte below the recommended minimum (Col 9 lines 45-65).

With respect to Applicant’s argument that “*To transform the "closing plug for an accumulator" of Krabatsch et al. and the "rechargeable electric battery" of Richter et al. into a "rechargeable battery" (as recited in Claim 8) would require still further modification, and such modification is taught only by the Applicant's own disclosure*.” Examiner notes that it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the conductive plastic material of Richter et al. as sealing plug material in Krabatsch et al because conductive plastic material is resistant to the corrosive internal environment of batteries.

. Furthermore, in response to applicant’s argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 .2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the conductive plastic material of Richter et al. as sealing plug

material in Krabatsch et al because conductive plastic material is resistant to the corrosive internal environment of batteries.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ben Lewis whose telephone number is 571-272-6481. The examiner can normally be reached on 8:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ben Lewis/
Examiner, Art Unit 1795

/PATRICK RYAN/
Supervisory Patent Examiner, Art Unit 1795